

WHAT IS CLAIMED IS:

1. A game apparatus in which a virtual camera arranged in a three-dimensional game space is made to follow a target location determined by a location of a player character in the game space so that a behavior of the player character in the game space is displayed in a displaying means as a game image, comprising:

5 an input-information obtaining means for obtaining input information input through an operating means by a player at intervals of the predetermined number of frames in order to move said player character in said game space;

10 a location updating means for updating the location of said player character and said target location in said game space based on said input information;

15 a virtual-camera-location updating means for updating in order a location of said virtual camera in such a manner that a distance from said target location to a reference location determined in a predetermined manner toward the location of said virtual camera at a predetermined ratio is shortened irrespective of whether or not said player character has moved; and

 a game-image generating means for generating the game image based on the updated location of said player character and location of said virtual camera.

2. A game apparatus according to claim 1, further comprising

20 a virtual-camera setting means for arranging the virtual camera in a location determined in a predetermined manner toward a point of regard, and setting a direction of said virtual camera in such a manner as to face said point of regard; wherein

 said reference location is a location of said point of regard,

25 said virtual-camera-location updating means updates in order the location of said virtual camera by updating in order the location of said point of regard in such a manner that a distance from said target location to the location of said point of regard is shortened

at a predetermined ratio irrespective of whether or not said player character has moved.

3. A game apparatus according to claim 1, further comprising
a virtual-camera setting means for arranging the virtual camera in a location
determined in a predetermined manner toward a point of regard, and setting a direction of
5 said virtual camera in such a manner as to face said point of regard; wherein

said reference location is a location of said virtual camera,
said target location is an initial location of said virtual camera that moves in
conjunction with said player character,

10 said virtual-camera-location updating means updates in order the location of said
virtual camera in such a manner that a distance from said target location to the location of
said virtual camera is shortened at a predetermined ratio irrespective of whether or not
said player character has moved.

4. A game apparatus according to claim 1, further comprising
a distance determining means for setting a maximum distance that uses said target
15 location as a reference, and determining whether or not the distance from the target
location to said reference location is rendered longer than said maximum distance; and
a forcedly updating means for forcedly updating said reference location to a
location within the maximum distance that uses said target location as a reference when
determined by said distance determining means that the distance is rendered longer than
20 said maximum distance.

5. A game apparatus according to claim 4, wherein
said camera-location updating means includes a reference-location calculating
means for calculating an updated reference location, and
said distance determining means determines whether or not said updated reference
25 location calculated by said reference-location calculating means is rendered longer than

the maximum distance from said target location.

6. A storing medium that stores a control program of a virtual camera executed by a computer of a game apparatus in which the virtual camera arranged in a three-dimensional game space is made to follow a target location determined by a location of a player character in the game space so that a behavior of the player character in the game space is displayed in a displaying means as a game image, the control program of said virtual camera allows said computer to be functioned as following means of:

an input-information obtaining means for obtaining input information input through an operating means by a player at intervals of the predetermined number of frames in order to move said player character in said game space;

a location updating means for updating the location of said player character and said target location in said game space based on said input information;

a virtual-camera-location updating means for updating in order a location of said virtual camera in such a manner that a distance from said target location to a reference location determined in a predetermined manner toward the location of said virtual camera at a predetermined ratio is shortened irrespective of whether or not said player character has moved; and

a game-image generating means for generating the game image based on the updated location of said player character and location of said virtual camera.

7. A method of a virtual camera in a game apparatus in which the virtual camera arranged in a three-dimensional game space is made to follow a target location determined by a location of a player character in the game space so that a behavior of the player character in the game space is displayed in a displaying means as a game image, comprising following steps of:

- (a) obtaining input information input through an operating means by a player at intervals of the predetermined number of frames in order to move said player character in said game space,
- 5 (b) updating the location of said player character and said target location in said game space based on said input information,
- (c) updating in order a location of said virtual camera in such a manner that a distance from said target location to a reference location determined in a predetermined manner toward the location of said virtual camera at a predetermined ratio is shortened irrespective of whether or not said player character has moved, and
- 10 (d) generating the game image based on the updated location of said player character and location of said virtual camera.